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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,667	10/31/2003	Carl Staelin	200311281-1	1031

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

NGUYEN, THINH H

ART UNIT	PAPER NUMBER
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2861

MAIL DATE	DELIVERY MODE
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10/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary**Application No.**

10/698,667

Applicant(s)

STAELIN ET AL.

Examiner

Thinh H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-17 and 28-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-17 and 28-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10, 12-17, 28-36 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hersch et al. (U.S. Patent Application 2005/0083540 A1)

Re claims 1, 4-7, Hersch (figs. 5,6; paragraphs 12, 133, 134, claim 58) discloses the instant claimed digital printing press comprising:

a print engine (600) for depositing ink at a thickness that is determined at least in part by developer voltage (where developer voltage is well known in the electrophotographic printing art as charged voltage difference) ; and

a processor (605) for estimating the developer voltage by applying an estimation (see prediction calibration) model to measured state parameters of the digital printing press.

Re claim 3, wherein the printing press includes a plurality of different inks, and wherein a developer voltage is estimated for each ink. (par.60, cl.58)

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Re claim 4, wherein the past measurements (initial) are used to generate an estimation model; and wherein the model is applied to the current measurement (printing time) of the at least one state parameter of the digital printing press. (par.13)

Re claim 5, wherein the model is based on at least one set of past measurements of developer voltage, an ink thickness measurement, and the at least one state parameter. (par.13)

Re claim 6, 14, 15, wherein the ink thickness measurement is inferred from a measurement of optical density. (par.5, 148)

Re claim 7, 8, 9, 16, 34, 35, updating the model with additional measurements; using the estimated developer voltage to print swatches at different digital dot areas; and for each swatch measuring optical density, computing physical dot area, and adding dot area coverage to a dot gain table; wherein the dot gain table is based on past observations of the at least one state parameter of the digital printing press. (par.38, 128, 134, 135)

Re claim 10, 13, 17, 36, wherein the control parameter is developer voltage, the method further comprising applying the estimated developer voltage to a BID unit while using the BID unit to deposit ink dots. (par.12)

Re claim 28, 30, wherein a statistical learning system is used to generate the model from the past measurements. (claims 1, 58,59)

Re claim 29, 31, 32, an article comprising memory encoded with data (as shown by LUT with mapping data) for causing the processor to generate the estimation model

of developer voltage from past measurements (initial) of developer voltage and the state parameters (printing time) of digital printing press. (claims 1, 58,59)

Response to Amendment

3. The declaration filed on July 30, 2007 under 37 CFR 1.131 has been considered but is ineffective to overcome the Hersch et al. reference.

4. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Hersch et al. reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897). In this case, the conception of the invention is insufficient in that a print engine for depositing ink at a thickness that is determined at least in part by developer voltage and for estimating the developer voltage by applying an estimation model to measured state parameters of the digital printing press.

5. The evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of the Hersch et al. reference to either a constructive reduction to practice or an actual reduction to practice.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Patent Application Information Retrieval (PAIR)

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Contact Information

7. Any inquiry concerning this communication should be directed to examiner Thinkh Nguyen at telephone number (571) 272-2257. The examiner can generally be reached Mon-Wed, and Thurs from 6:30A – 3:00P. The official fax phone number for the

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organization is (571) 273-8300. The examiner supervisor, Matthew Luu, can also be reached at (571) 272-7663.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1782.



Thinh Nguyen

October 10, 2007

Thinh Nguyen
Primary Examiner
Technology Center 2800